MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2022/2023

PPE0044 – BASIC MICROECONOMICS

(Foundation in Business)

12 JULY 2023
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 12 pages with 2 sections.

2. Attempt **ALL** questions in Section A and Section B. The distribution of the marks for each question is given.

3. Please write all your answers for Section A on the OMR form provided and all answers for Section B in the Answer Booklet provided.

SECTION A: MULTIPLE CHOICE QUESTIONS [40 MARKS]

Instructions: Answer **ALL** questions in this section. Shade the answers on the **OMR** sheet.

1. Suppose the demand curve for a product is vertical and the supply curve is upward sloping. If a unit tax is imposed in the market for this product, _____.
   A. sellers bear the entire burden of the tax
   B. buyers bear the entire burden of the tax
   C. the tax burden will be shared equally between buyers and sellers
   D. buyers share the burden of the tax with government

2. If 50 units are sold at a price of RM20 and 80 units are sold at a price of RM15, what is the absolute value of the price elasticity of demand? Use the midpoint formula.
   A. 0.17
   B. 0.62
   C. 1.59
   D. 5

3. Suppose a decrease in the supply of bottled water results in a decrease in revenue. This indicates that _____.
   A. the demand for bottled water is inelastic in the price range considered
   B. the demand for bottled water is elastic in the price range considered
   C. the supply of bottled water is inelastic in the price range considered
   D. the supply of bottled water is elastic in the price range considered

4. When demand is elastic, a fall in price causes total revenue to rise because _____.
   A. when price falls, quantity sold increases, so total revenue automatically rises
   B. the increase in quantity sold is large enough to offset the lower price
   C. the percentage increase in quantity demanded is less than the percentage fall in price
   D. the demand curve shifts

5. Consider a demand curve that has a constant elasticity value of 0. What happens to quantity demanded and total revenue when price increases?
   A. The quantity demanded and total revenue remain the same.
   B. The quantity demanded does not change but total revenue increases.
   C. The quantity demanded and total revenue fall to zero.
   D. The quantity demanded does not change but total revenue decreases.

6. When the price of tacos went from $2 to $3 dollars each, the quantity demanded of burritos changed from 100 to 120 a day. The cross elasticity of demand for burritos calculated using the midpoint method is _____.
   A. 1.33.
   B. 0.75.
   C. 0.45.
   D. -0.75.

Continued...

7. Suppose that the income elasticity of demand for new clothes is positive. Other things being equal, which of the following statements is **CORRECT**?
   A. New clothes are a normal good.
   B. The quantity demanded for new clothes decreases as a consumer's income declines.
   C. There exists a positive relationship between income and the demand for new clothes.
   D. All of the above.

Refer to ***Exhibit 1*** for question no.8.

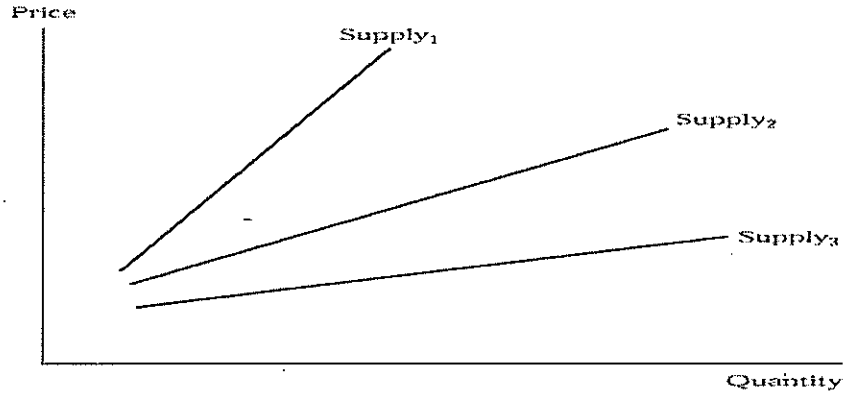

Exhibit 1

8. Refer to ***Exhibit 1***. the most elastic supply curve _____.
   A. is $supply_1$.
   B. is $supply_2$.
   C. is $supply_3$.
   D. cannot be determined.

9. Suppose the value of the price elasticity of supply is 4. What does this mean?
   A. A 4 percent increase in the price of the good causes quantity supplied to increase by 1 percent.
   B. A 1 percent increase in the price of the good causes the supply curve to shift upward by 4 percent.
   C. A 1 percent increase in the price of the good causes quantity supplied to increase by 4 percent.
   D. For every RM1 increase in price, quantity supplied increases by 4 units.

Refer to ***Exhibit 2*** for question no.10.

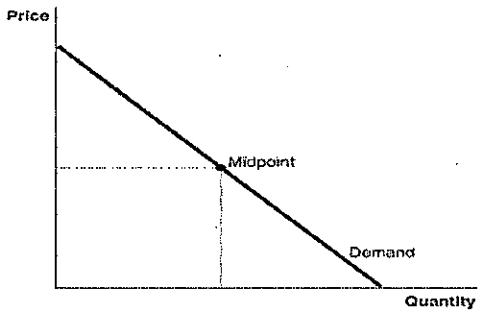

Exhibit 2

Continued...

10. Refer to ***Exhibit 2***. Which of the following statements is **TRUE** about the price elasticity of demand?
    A. The elasticity coefficient is constant along the demand curve.
    B. The elastic portion of a straight-line downward sloping demand curve corresponds to the segment above the midpoint.
    C. The inelastic portion of the demand curve corresponds to the segment above the midpoint.
    D. At the midpoint of the demand curve, the elasticity coefficient is zero.

Refer to ***Exhibit 3*** for questions no.11 and 12.

> You are the owner and only employee of a company that sets odds for sporting events. Last year you earned a total revenue of $100,000. Your costs for rent and supplies were $50,000. To start this business, you invested an amount of your own capital that could pay you a return of $20,000 a year.

Exhibit 3

11. Refer to ***Exhibit 3***. During the year, your economic costs were _____.
    A. $70,000.
    B. $60,000.
    C. $50,000.
    D. $20,000.

12. Refer to ***Exhibit 3***. Your accounting profit last year was _____.
    A. $10,000.
    B. $30,000.
    C. $50,000.
    D. $60,000.

13. Which of the following is a long-run adjustment?
    A. A firm lays off two workers.
    B. Two firms exit the asbestos removal industry.
    C. A manufacturer increases its purchase of raw materials.
    D. A farmer buys twice her usual amount of fertilisers.

14. Which of the following is an implicit cost of production?
    A. interest paid on a loan to a bank
    B. wages paid to labor plus the cost of carrying benefits for workers
    C. the utility bill paid to water, electricity, and natural gas companies
    D. rent that could have been earned on a building owned and used by the firm

15. Red Stone Creamery currently hires 5 workers. When it added a 6th worker, its output fell. Which of the following statements is **TRUE**?
    A. The marginal product of the sixth worker must be negative.
    B. The average product of the sixth worker is negative.
    C. The sixth worker is not as skilled as the fifth worker.
    D. The total product becomes negative.

Continued...

16. Which of the following is **NOT** true when the firm experiences diminishing marginal product?
    A. The total product is decreasing.
    B. The marginal product of the previous worker is higher than the current worker.
    C. The firm is operating in the short run.
    D. The firm's total cost is increasing.

17. If another worker adds 9 units of output to a group of workers who had an average product of 7 units, then the average product of labour _____.
    A. will remain the same
    B. will increase
    C. will decrease
    D. and what will happen to it cannot be determined

Refer to ***Exhibit 4*** for question no.18.

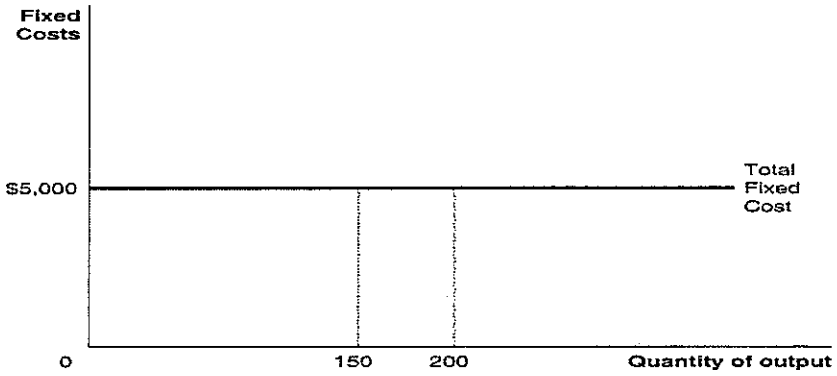

Exhibit 4

18. Refer to ***Exhibit 4***. What happens to the average fixed cost of production when the firm increases output from 150 to 200?
    A. It remains constant.
    B. It rises.
    C. It falls.
    D. It could rise or fall depending on what happens to total cost.

19. When a firm's long-run average cost curve is horizontal for a range of output, then that range of production displays _____.
    A. increasing returns to scale
    B. constant returns to scale
    C. decreasing returns to scale
    D. constant average fixed costs

20. If a firm decreases its plant size and finds that its long-run average costs have decreased, then _____.
    A. its labour is more productive in a smaller plant
    B. its diseconomies of scale are less
    C. the firm should reduce its plant size even more
    D. the firm is now profitable

Continued...

21. Assume that in 2015, AZ Corp produced 500 million units of a good at an average cost of RM20 and in 2016, AZ Corp expanded its plant capacity and produced 600 million units at an average cost of RM18. In this range, one can conclude that AZ Corp is experiencing _____.
    A. economies of scale
    B. diseconomies of scale
    C. diminishing marginal product
    D. neither economies of scale nor diseconomies of scale

22. A firm's average total cost is RM100, its average variable cost is RM90, and its total fixed cost is RM1,000. Its output is _____.
    A. less than 70 units
    B. more than 170 units
    C. between 70 and 120 units
    D. between 120 and 170 units

23. As the marginal product of a variable input _____, the marginal cost _____.
    A. increases; increases
    B. increases; decreases
    C. decreases; increases
    D. B and C

24. A monopolistically competitive firm that is earning profits will, in the long run, experience all of the following **EXCEPT** _____.
    A. new rivals entering the market
    B. a decrease in demand for its product
    C. demand for the firm's product becomes more elastic
    D. a decrease in the number of rival products

25. Is a monopolistically competitive firm productively efficient?
    A. No, because it does not produce at minimum average total cost.
    B. Yes, because it produces where marginal cost equals marginal revenue.
    C. No, because the price is greater than marginal cost.
    D. Yes, because price equals average total cost.

26. If a firm has excess capacity, it means _____.
    A. that the firm expends too much of its resources on advertising its product without seeing an appreciable increase in sales.
    B. that the firm is not producing its minimum efficient scale of output.
    C. that the firm's long-run average cost of producing a given quantity exceeds its short-run cost of producing that same quantity.
    D. that the firm's quantity supplied exceeds its quantity demanded.

Continued...

27. Which of the following is **NOT** a characteristic of long-run equilibrium in a monopolistically competitive market?
    A. Selling price equals average total cost.
    B. Production is at minimum average total cost.
    C. Marginal revenue equals marginal cost.
    D. Selling price is greater than marginal cost.

28. Producing a homogeneous product occurs in which of the following industries?
    A. oligopoly, monopolistic competition, and perfect competition
    B. perfect competition only
    C. oligopoly and perfect competition
    D. monopolistic competition and perfect competition

29. A characteristic found only in oligopolies is _____.
    A. break-even level of profits
    B. interdependence of firms
    C. independence of firms
    D. products that are slightly different

Refer to ***Exhibit 5*** for question no.30.

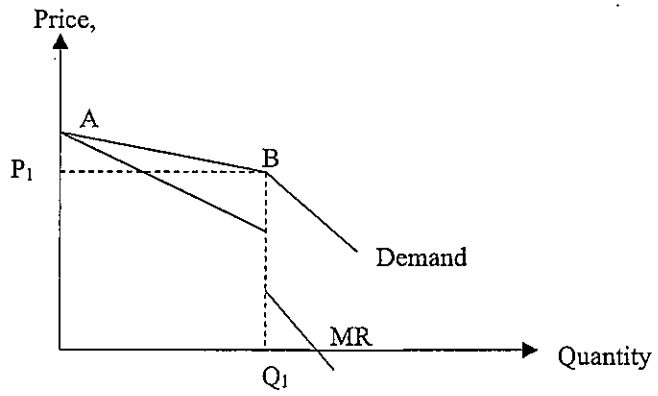

Exhibit 5

30. Refer to ***Exhibit 5***. Section AB of the demand curve assumes that competing firms will _____.
    A. raise their price in response to this firm's price increase
    B. raise their price in response to this firm's price decrease
    C. decrease their price in response to this firm's price increase
    D. not change their price in response to this firm's price increase

31. A local electricity-generating company has a monopoly that is protected by an entry barrier that takes the form of _____.
    A. control of a key raw material
    B. network externalities
    C. economies of scale
    D. perfectly inelastic demand curve

Continued...

32. A profit maximising monopoly's price is
    A. the same as the price that would prevail if the industry was perfectly competitive.
    B. less than the price that would prevail if the industry was perfectly competitive.
    C. greater than the price that would prevail if the industry was perfectly competitive.
    D. not consistently related to price that would prevail if the market was perfectly competitive.

33. Under which of the following conditions will a profit-maximising perfectly competitive firm shut down in the short run?
    A. whenever its total cost is greater than its total revenue
    B. when the price is less than its minimum average total cost
    C. whenever its marginal cost is less than its marginal revenue
    D. when the price is less than its minimum average variable cost

34. A perfectly competitive firm is producing at the quantity where marginal cost is RM6 and average total cost is RM4. The price of the good is RM5. To maximise its profit, this firm should _____.
    A. raise its price
    B. lower its price
    C. increase its output
    D. decrease its output

35. One requirement for an industry to be perfectly competitive is that _____.
    A. there are many firms selling different products
    B. sellers and buyers have imperfect information about prices
    C. there are no restrictions on entry into or exit from the market
    D. there are multiple restrictions on entry into or exit from the market

36. As we move upward along a consumer's indifference curve, the marginal rate of substitution _____.
    A. increases and the indifference curve becomes flatter
    B. decreases and the indifference curve becomes flatter
    C. increases and the indifference curve becomes steeper
    D. decreases and the indifference curve becomes steeper

37. Ellie is spending her entire income on goods X and Y. Her marginal utility from the last unit of X is 100 and the marginal utility from the last unit of Y that she consumes is 50. Ellie's utility is only maximised if _____.
    A. the prices of X and Y are the same
    B. the price of good X is twice that of good Y
    C. the price of good Y is twice that of good X
    D. We cannot determine whether Ellie is maximising her utility

Continued...

38. Richard is consuming X and Y so that he is spending his entire income and MUx/Px = 6 and MUy/Py = 10. To maximise utility, he should _____.
    A. continue to consume the same amount of X and Y since he is already maximising utility
    B. consume less of both X and Y
    C. consume more X and less Y
    D. consume less X and more Y

39. For normal goods, the substitution and income effects of a price decrease will _____.
    A. both decrease the quantity of the good demanded
    B. both increase the quantity of the good demanded
    C. the substitution effect will increase the quantity of the good demanded while the income effect will decrease the quantity of the good demanded
    D. the substitution effect will decrease the quantity of the good demanded while the income effect will increase the quantity of the good demanded

Refer to ***Exhibit 6*** for question no.40.

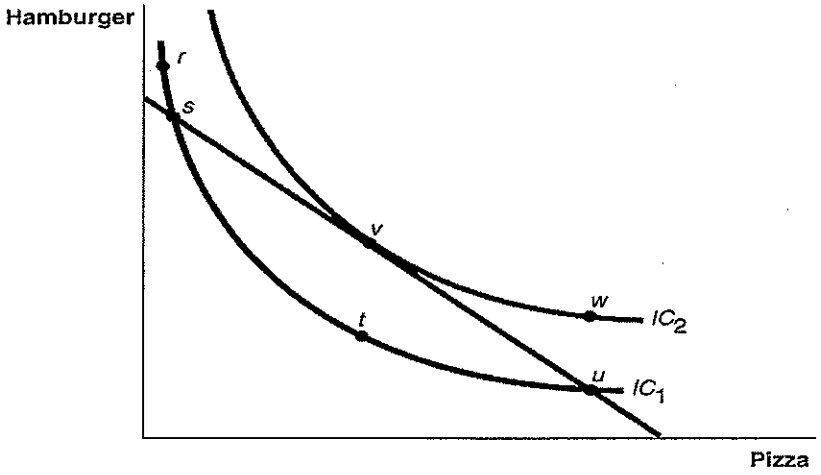

Exhibit 6

40. Refer to ***Exhibit 6.*** The consumer can afford consumption bundles of _____.
    A. *r*, *s*, *t* and *u*
    B. *r*, *s*, *v* and *u*
    C. *s*, *v*, *t* and *u*
    D. *s*, *v* and *u* only

Continued...

SECTION B: STRUCTURED QUESTIONS [60 MARKS]

Instructions: Answer **ALL** questions in this section. Write your answers in the Answer Booklet.

Question 1

Exhibit 7 shows Laura's Cookie Company production and cost schedules for making cookies by the dozen. The firm's fixed costs (FC) are RM300 per day.

Quantity of workers	Output	Total cost (RM)
0	0	300
1	625	800
2	1,325	1300
3	2,200	1800
4	2,600	2300
5	2,900	2800

Exhibit 7

a) Calculate Laura's Cookie's marginal product (MP) and average product (AP) for each worker employed.

(5 marks)

b) Based on a), over what range of workers employed, the marginal product is greater than the average product. Over that range, how does the average product change as the number of workers increases?

(1 mark)

c) Based on a), over what range of workers employed, the marginal product is less than the average product. Over that range, how does the average product change as the number of workers increases?

(1 mark)

d) Construct Laura's Cookie's total variable cost, marginal cost, average total cost, and average variable cost schedules.

(10.5 marks)

e) What is the relationship between the firm's marginal product and marginal cost?

(2.5 marks)

[TOTAL 20 MARKS]

Continued...

Question 2

Part A

Assume that Adriana has $7 to spend on sandwiches and pizza. ***Exhibit 8*** shows Adriana's marginal utility obtained from the consumption of sandwiches and pizza.

Sandwiches		Pizza	
Quantity (unit)	Marginal Utility (utils)	Quantity (slice)	Marginal Utility (utils)
1	10	1	5
2	8	2	4
3	6	3	3
4	3	4	1
5	-1	5	0

Exhibit 8

Based on ***Exhibit 8***,

a) briefly explain your understanding about the marginal utility for the 5th unit of sandwich and the 5th slice of pizza.

(2 marks)

b) suppose that the price of sandwich is $1.00 per unit and price of pizza is $1.00 per slice. Calculate the marginal utility per price ratio for sandwiches and pizzas.

(5 marks)

c) what combination of sandwiches and pizza should Adriana purchase in order to maximise her total utility? Why?

(3 marks)

d) if the price of sandwiches falls to $0.50 per unit, can Adriana remain at this consumption bundle? Briefly explain.

(2 marks)

Part B

Suppose that Noran has $400 to spend on day spa and shoes. ***Exhibit 9*** shows Noran's budget constraint and her indifference curve.

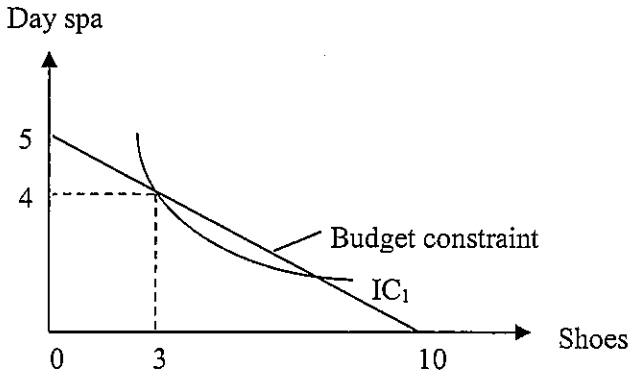

Exhibit 9

Continued...

Based on ***Exhibit 9***,

a) what is the price of day spa? What is the price of shoes?

(3 marks)

b) calculate the opportunity cost of a day spa in terms of shoes.

(1 mark)

c) does Noran make the optimum choice if she buys 4 days spa and 3 shoes? Briefly explain.

(2 marks)

d) suppose now Noran's income has increased to $560, calculate Noran's new real income in terms of day spa and shoes.

(2 marks)

[TOTAL 20 MARKS]

Question 3

Part A

Explain with a diagram, a perfectly competitive firm incurring economic losses but continue to operate. Analyse precisely the area for total revenue, total cost, total economic losses, total fixed costs, and total variable costs.

(12 marks)

Part B

Exhibit 10 shows the demand and cost curves for a monopolist. Refer to ***Exhibit 10*** to answer the following questions.

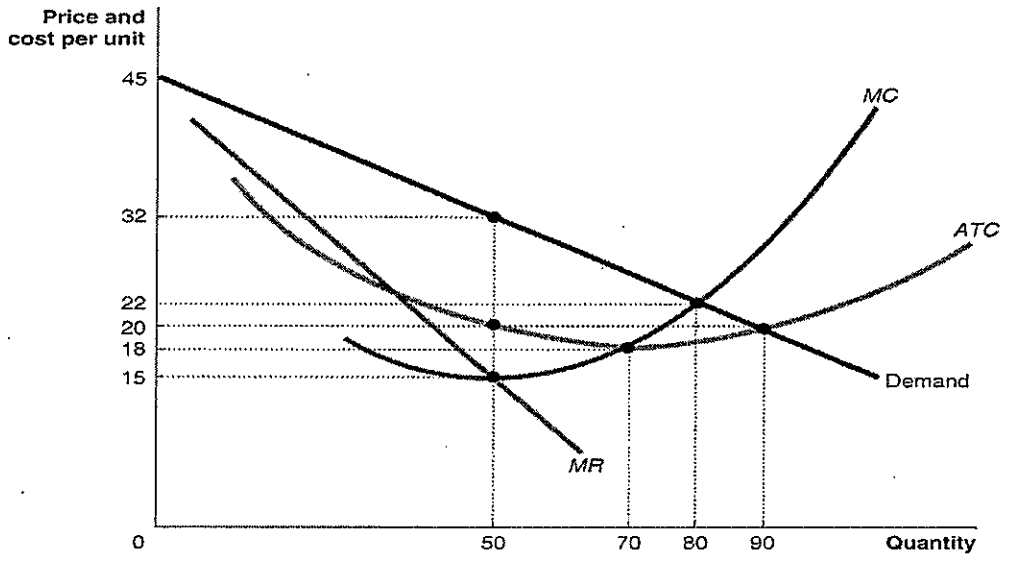

Exhibit 10

a) What is the profit-maximising quantity and what price will the monopolist charge?

(1 mark)

b) What is the total revenue at the profit-maximising output level?

(1 mark)

Continued...

c) What is the total cost at the profit-maximising output level?

(1 mark)

d) What is the profit?

(1 mark)

e) What is the profit per unit (average profit) at the profit-maximising output level?

(1 mark)

f) How much would be the consumer surplus under monopoly?

(1 mark)

g) If this industry was organised as a perfectly competitive industry, what would be the profit-maximising price and quantity? How much would be the consumer surplus under perfectly competitive industry?

(2 marks)

[TOTAL 20 MARKS]

End of paper